

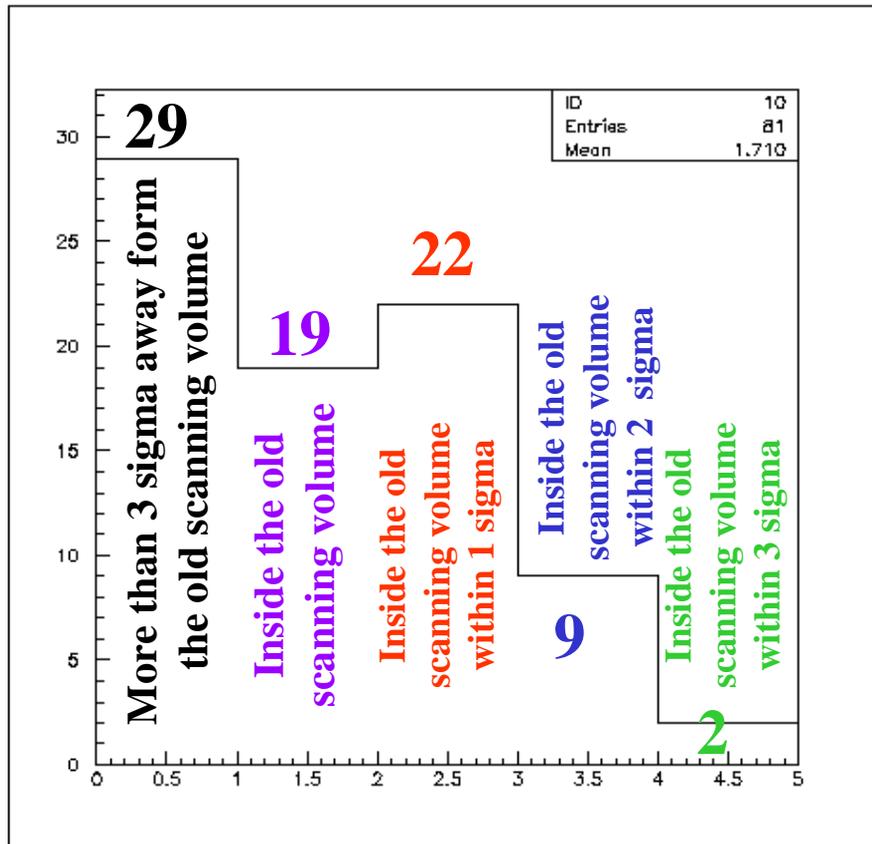
Progress report on vertex predictions & Event Location

N. Saoulidou & G. Tzanakos 28 - 5 - 2002

Outline

- 81 events with good quality m-files (vertex predictions & event location)
- New period 1 events from Byron & George (vertex predictions)
- 13 released new period 3 events (event location)

New predictions (81 GQ events) vs Old scanning volumes

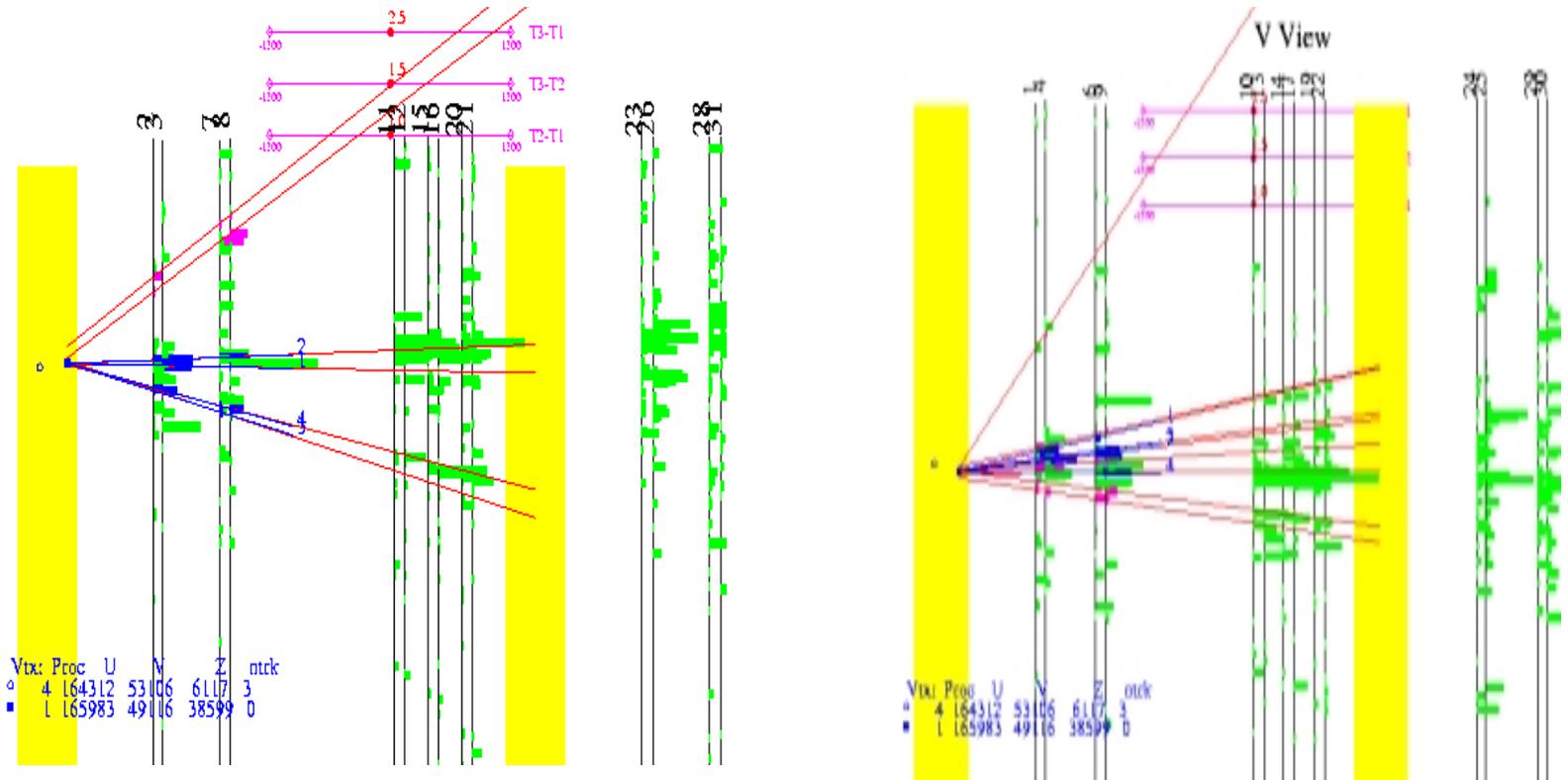


- For the 81 events we used the information from all the old scanning volumes to compare the new with old predictions.
- For those events (**19**) that the new prediction was inside or close to the old scanning volume we attempted event location.
- So far we have **send 5** such **events** with **vertex candidates** to Japan.
- We are continuing to attempt event location for events from this sample....

New Period 1 events

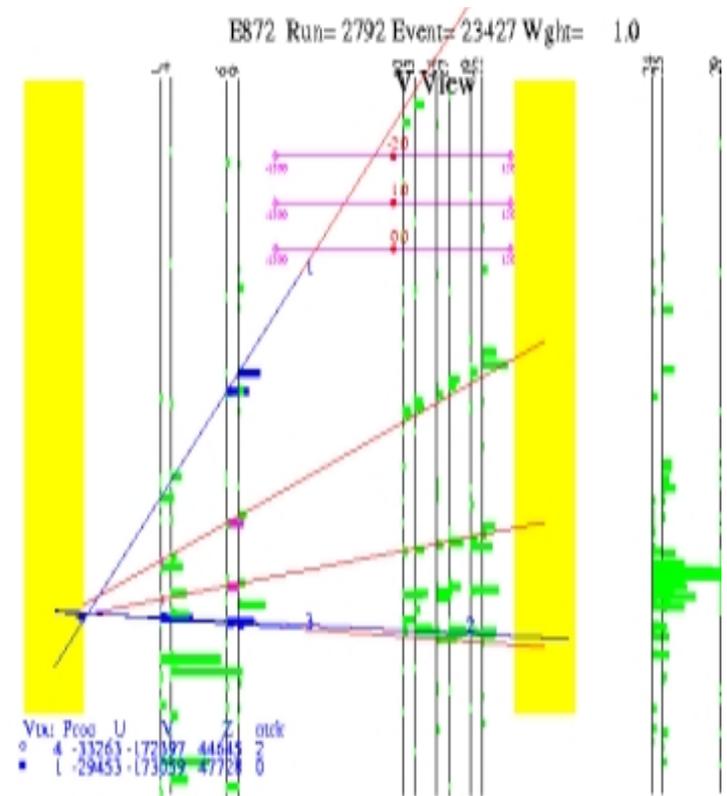
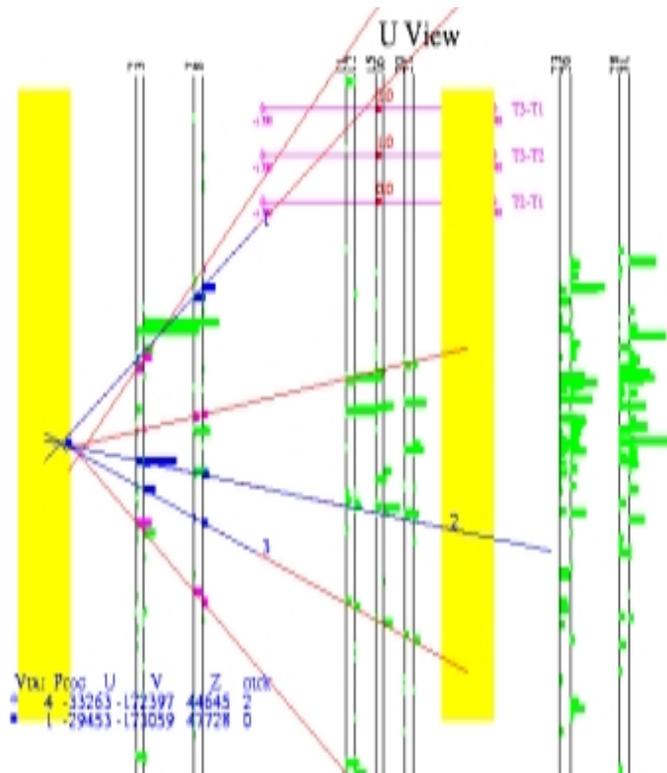
- Byron and George after visual scanning of the events selected by the ANN for period 1, ended up with 10 (10 -> 8 -> 6 ?) additional events.
- Byron has made vertex predictions for these events.
- We also obtained vertex predictions for these events using our code in order to compare.
- Most of these events have large showers so they are “difficult” events as far as vertex predictions are concerned.

Event 2719_12038



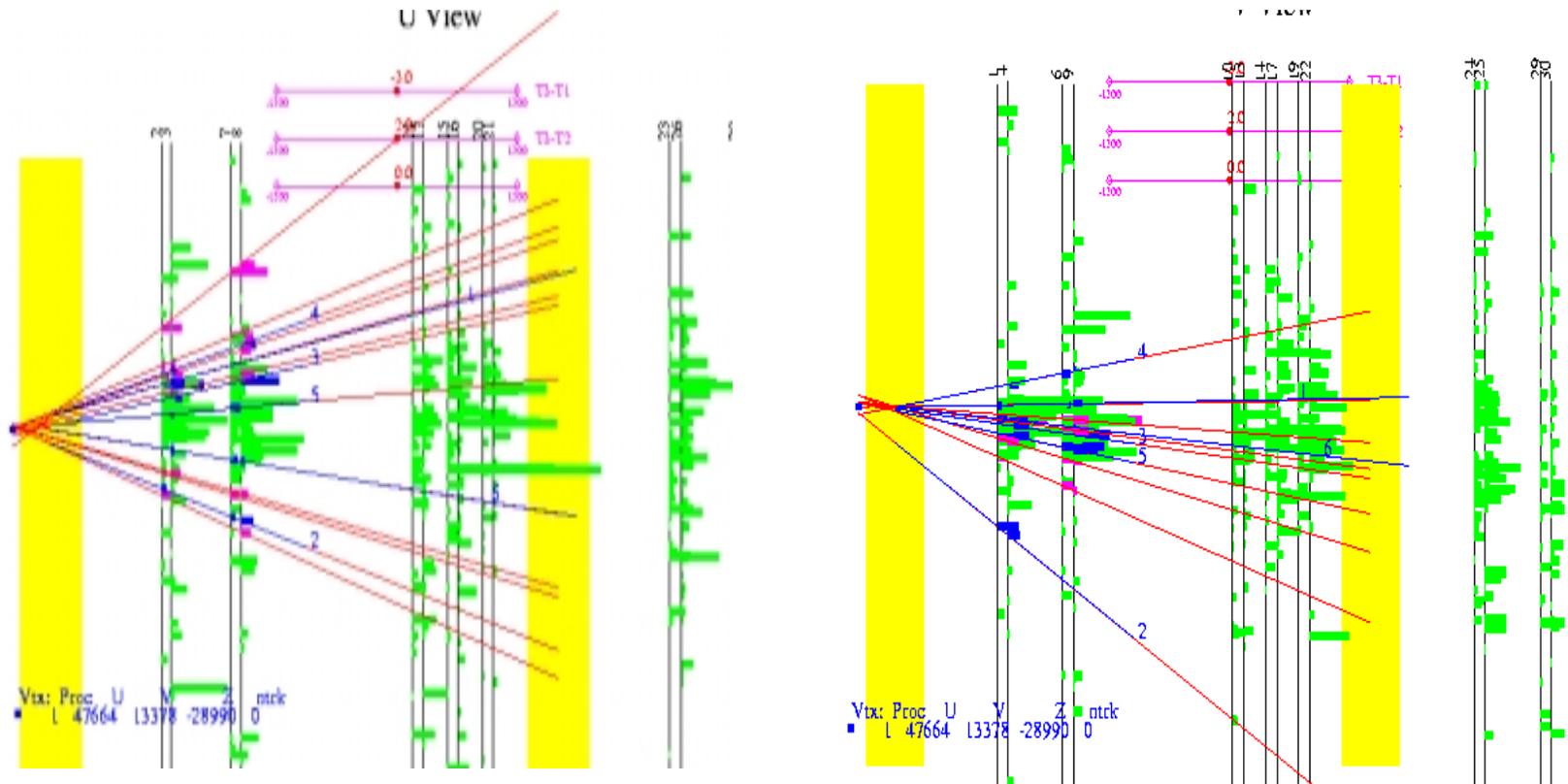
| RUN | EVENT | VTXTYP | ZPOS | ZERR | UPOS | UERR | VPOS | VERR |
|------|-------|--------|---------|---------|---------|---------|---------|---------|
| 2791 | 12038 | 1 | 0.03860 | 0.01000 | 0.16598 | 0.00090 | 0.04912 | 0.00090 |

Event 2792_23427



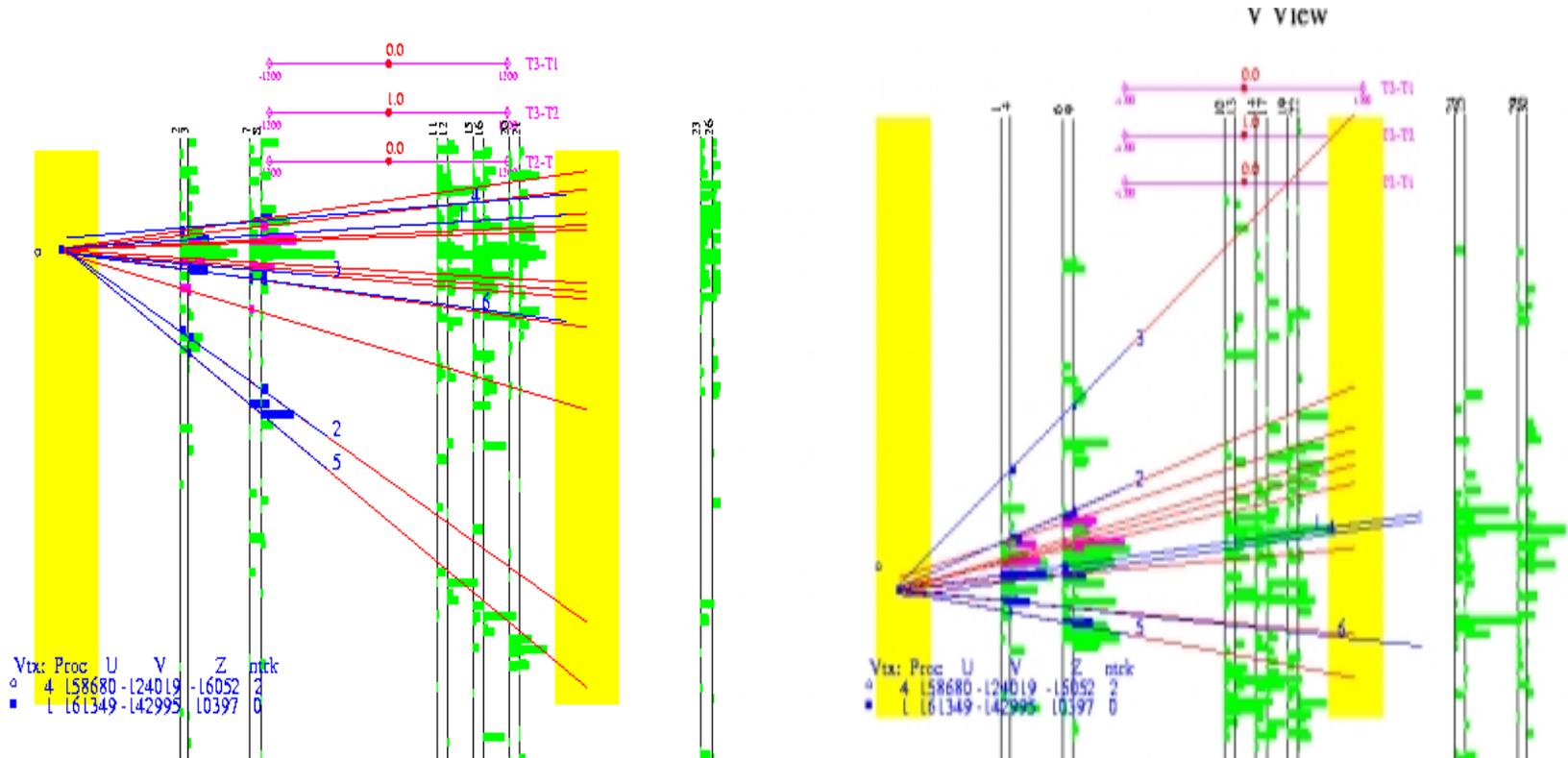
| RUN | EVENT | VTXTYP | ZPOS | ZERR | UPOS | UERR | VPOS | VERR |
|------|-------|--------|---------|---------|----------|---------|----------|---------|
| 2792 | 23427 | 1 | 0.04773 | 0.00160 | -0.02945 | 0.00090 | -0.17306 | 0.00100 |

Event 2806_18963



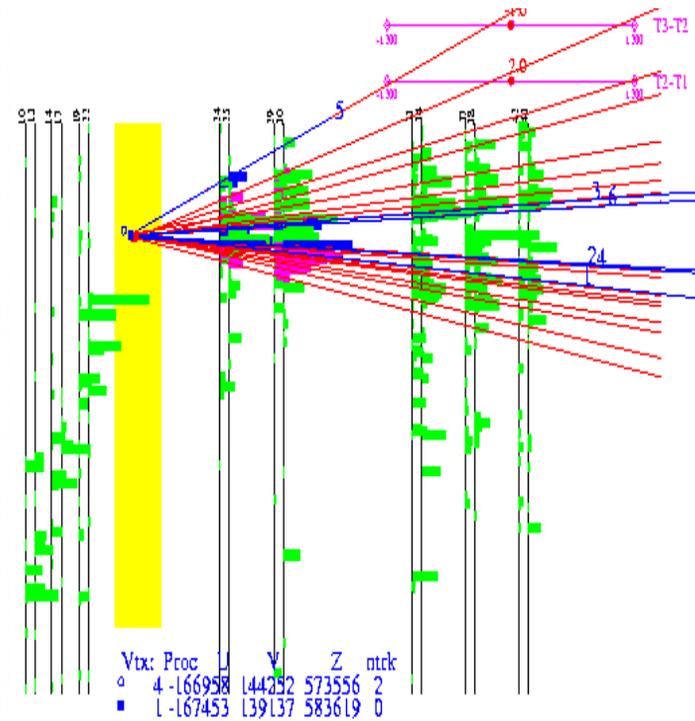
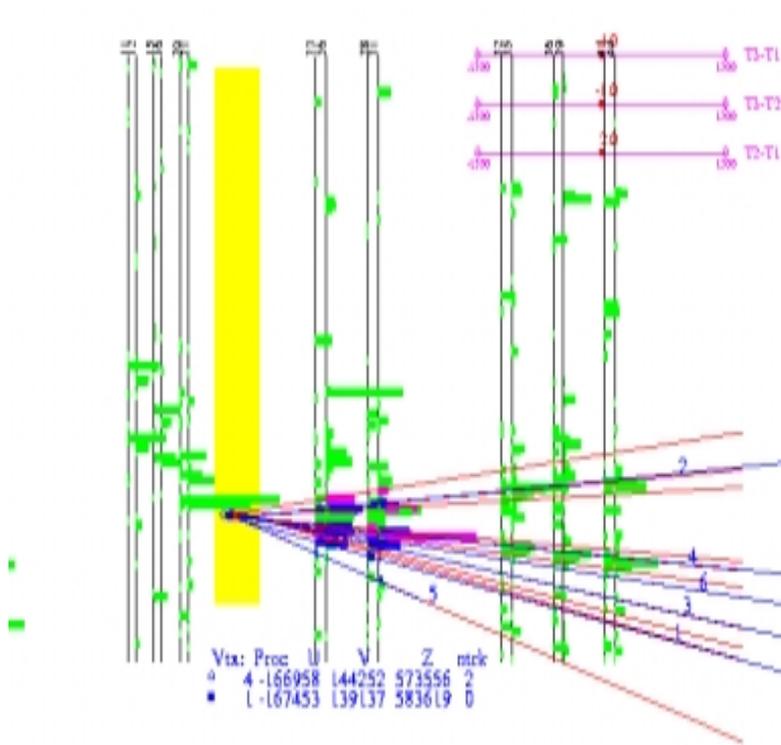
| RUN | EVENT | VTXTYP | ZPOS | ZERR | UPOS | UERR | VPOS | VERR |
|------|-------|--------|----------|---------|---------|---------|---------|---------|
| 2806 | 18963 | 1 | -0.02899 | 0.00380 | 0.04766 | 0.00100 | 0.01338 | 0.00105 |

Event 2809_11206



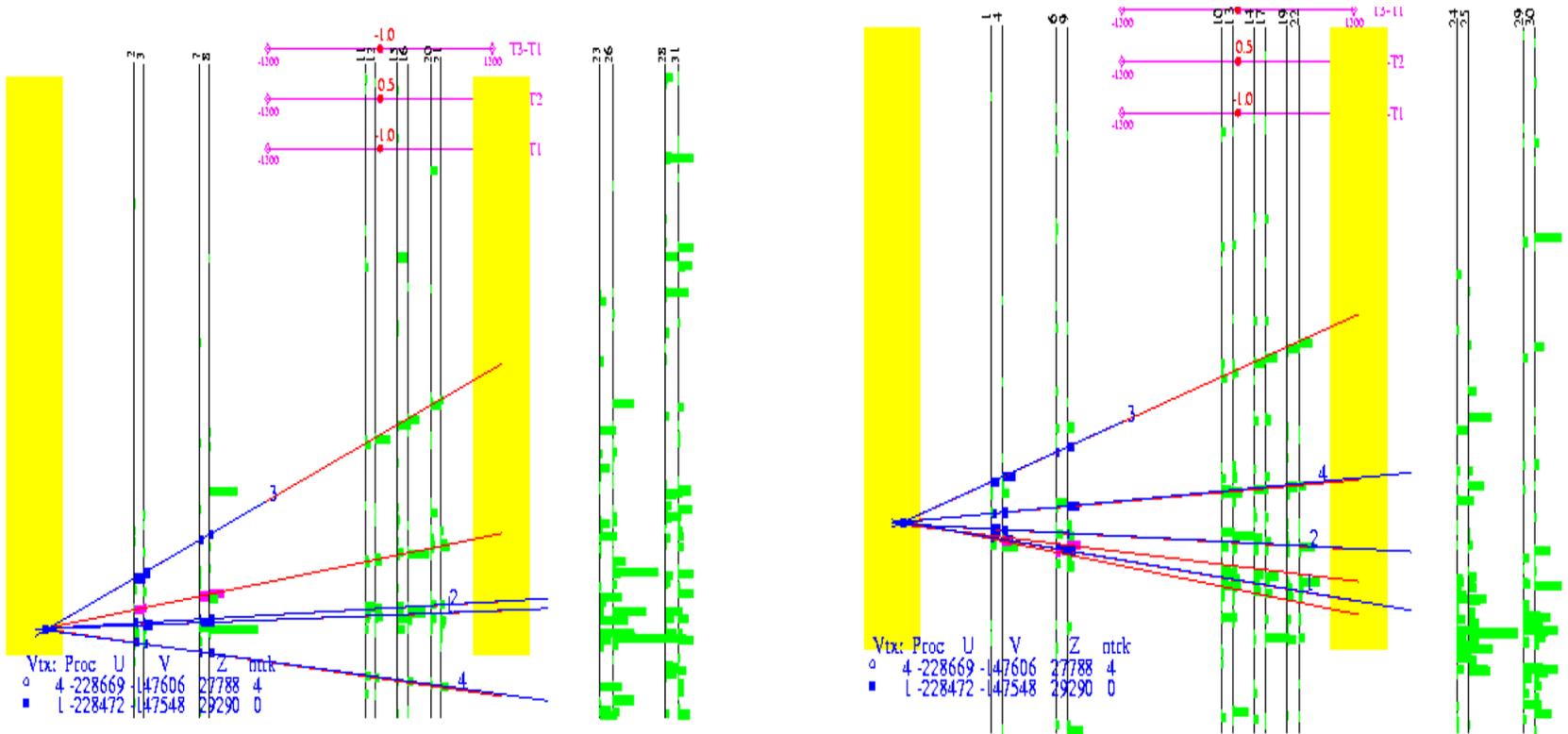
| RUN | EVENT | VTXTYP | ZPOS | ZERR | UPOS | UERR | VPOS | VERR |
|------|-------|--------|---------|---------|---------|---------|----------|---------|
| 2809 | 11206 | 1 | 0.01040 | 0.00200 | 0.16135 | 0.00085 | -0.14300 | 0.00085 |

Event 2875_04938



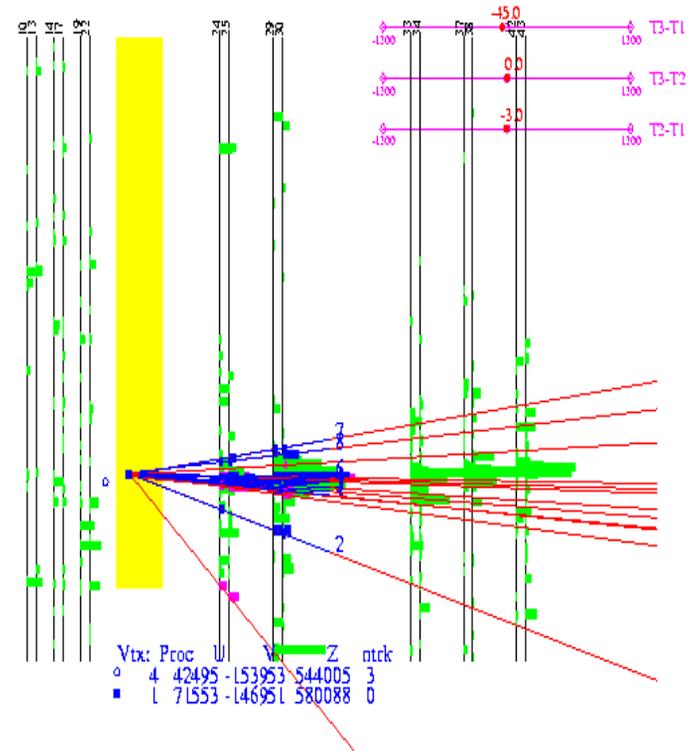
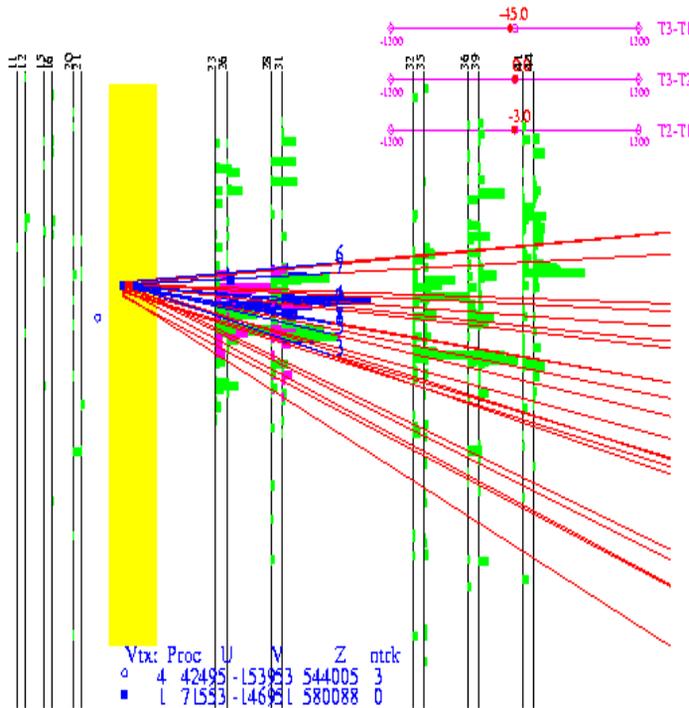
| RUN | EVENT | VTXTYP | ZPOS | ZERR | UPOS | UERR | VPOS | VERR |
|------|-------|--------|---------|--------|----------|---------|---------|---------|
| 2875 | 4983 | 1 | 0.58362 | 0.0038 | -0.16745 | 0.00080 | 0.13914 | 0.00070 |

Event 2899_23193



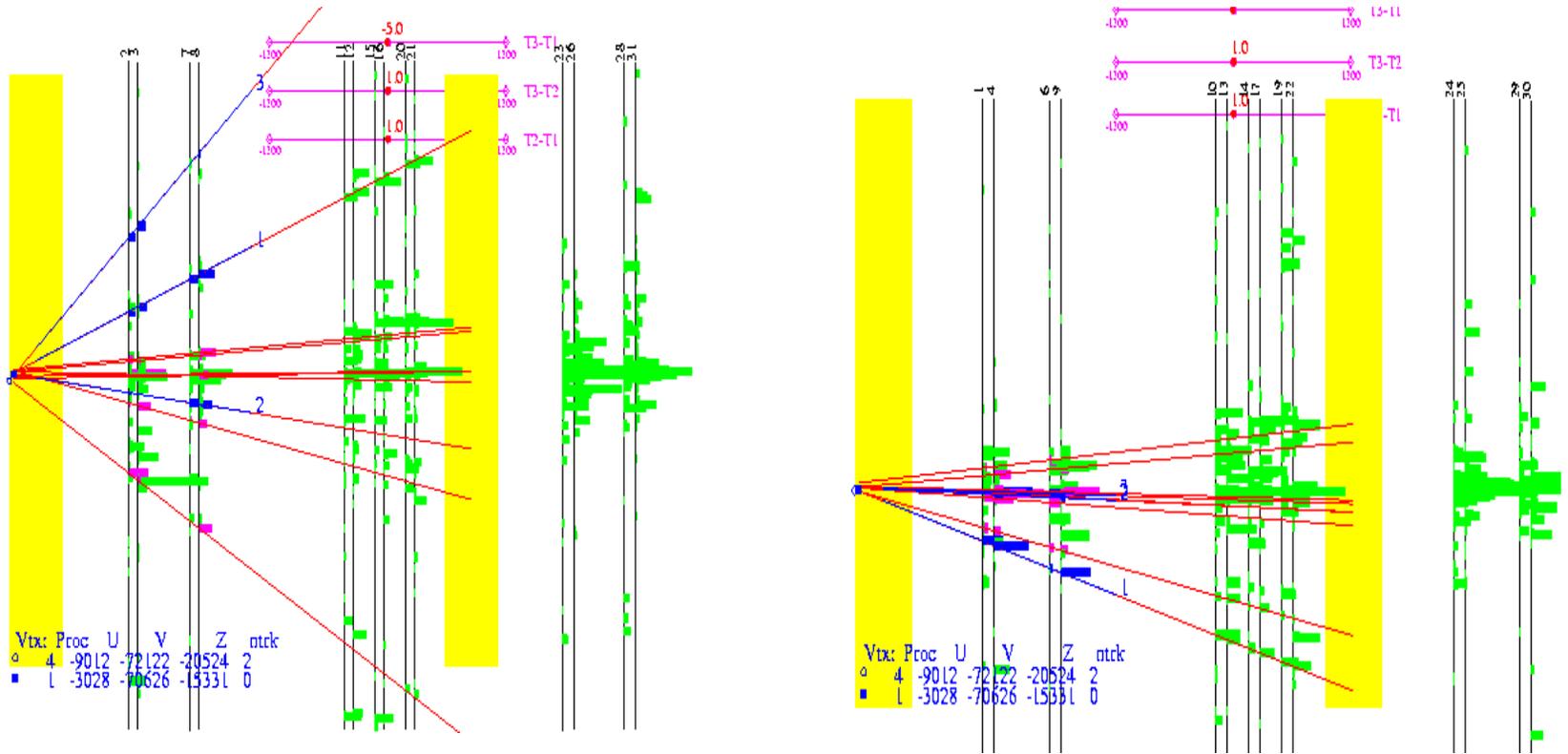
| RUN | EVENT | VTXTYP | ZPOS | ZERR | UPOS | UERR | VPOS | VERR |
|------|-------|--------|---------|---------|----------|---------|----------|---------|
| 2899 | 23193 | 1 | 0.02929 | 0.00295 | -0.22847 | 0.00075 | -0.14755 | 0.00075 |

Event 2938_16097



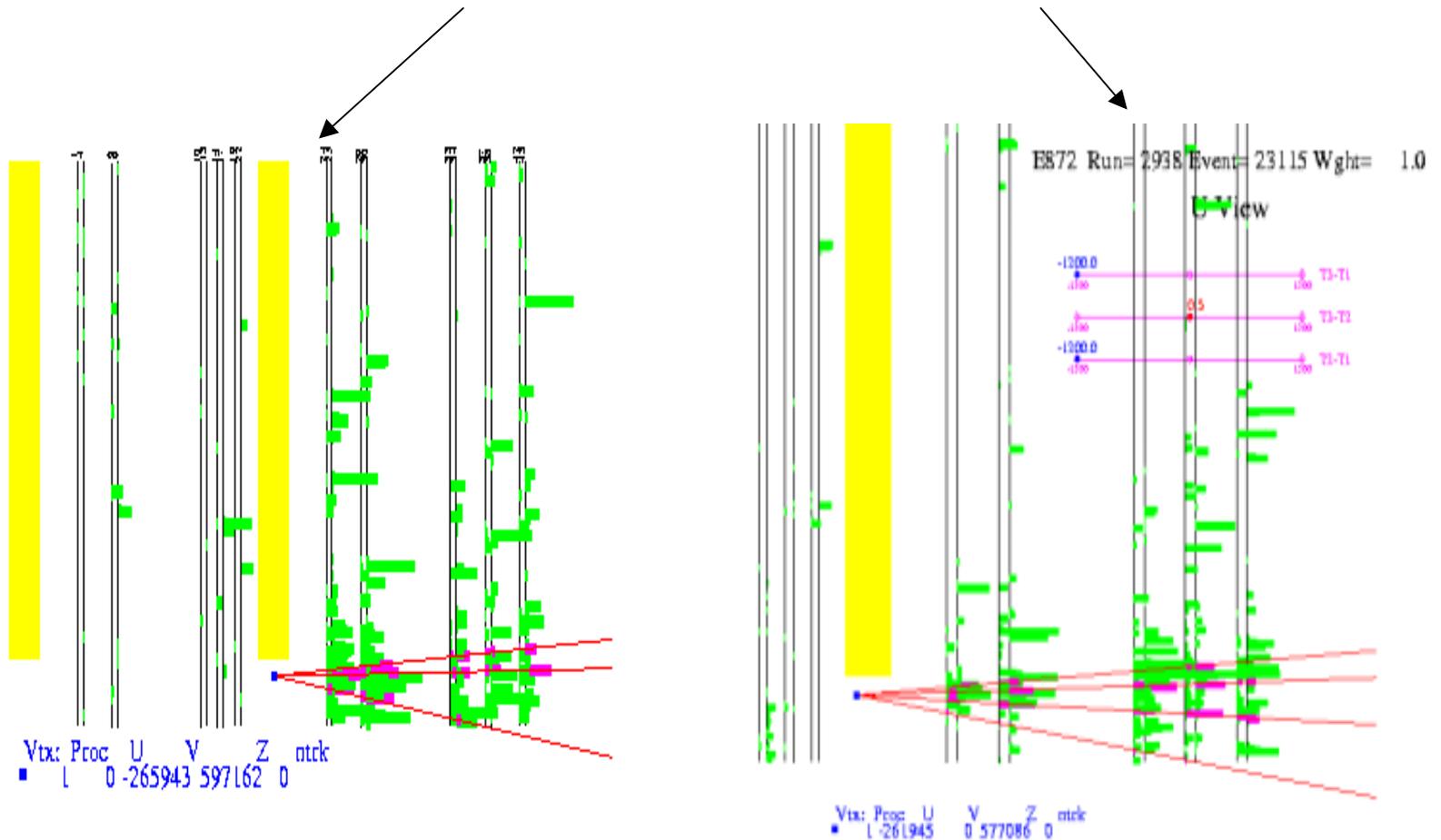
| RUN | EVENT | VTXTYP | ZPOS | ZERR | UPOS | UERR | VPOS | VERR |
|------|-------|--------|---------|---------|---------|---------|----------|---------|
| 2938 | 16097 | 1 | 0.58009 | 0.00500 | 0.07155 | 0.00085 | -0.14695 | 0.00070 |

Event 2938_17780



| RUN | EVENT | VTXTYP | ZPOS | ZERR | UPOS | UERR | VPOS | VERR |
|------|-------|--------|----------|---------|----------|---------|----------|---------|
| 2938 | 17780 | 1 | -0.01533 | 0.00315 | -0.00303 | 0.00165 | -0.07063 | 0.00115 |

Events 2825_09420 & 2938_23115



We think they are both out in v and u respectively

13 New period 3 events

- We have send 3 events to Jikou that have a large possibility of being located (≥ 3 emulsion tracks matching with spectrometer tracks) .
- We are continuing to process the m-files for these events attempting event location ...